

T. Inui et al.
U.S. Serial No. 10/789,085
Page 5 of 7

REMARKS

Claims 1-4, 6, and 8-10 are pending in the subject application. Independent claim 1 has been amended to recite that the first laser light and the second laser light have different wavelengths. The amendment is fully supported by the application as originally filed (see, e.g., specification at page 12, lines 5-9; page 18, line 27 to page 19, line 2; and page 21, lines 5-8).

Applicants' claimed invention is directed to a crystal growth apparatus for radiating laser light on a semiconductor thin film, including a first radiation means for selectively radiating first laser light to melt a crystallization target area of the semiconductor thin film, and a second radiation means for selectively radiating second laser light to heat without melting a base material, where the first laser light and the second laser light have different wavelengths (see, e.g., specification at page 18, line 27 to page 19, line 2; and page 21, lines 5-8).

Claims 1-3, 6, 8, and 10 were rejected under 35 USC 103(a) as being obvious over U.S. Patent Application Publication US 2003/0021307 to Yamazaki. Claims 4 and 9 were rejected over combinations including the Yamazaki reference. These rejections are respectfully traversed.

Yamazaki does not teach or suggest a crystal growth apparatus in which first laser light radiated by a first radiation means and second laser light radiated by a second radiation means have **different wavelengths**, where the first radiation means radiates the first laser light to melt a target area and the second radiation means radiates the second laser light to heat without melting a base material.

As described in paragraphs 0090 to 0094 of Yamazaki, a laser treatment apparatus can include a plurality of optical systems 401, 402, and 403 in which laser beams are superimposed "to obtain an energy density required for a laser treatment and to eliminate the interference of light" (paragraph 0090 of Yamazaki). As stated in paragraph 0093, the laser beams have different phases, so interference is reduced by superimposing the laser beams on one another.

T. Inui et al.
U.S. Serial No. 10/789,085
Page 6 of 7

However, Yamazaki does not teach or suggest that the laser beams emitted by the optical systems 401, 402, and 403 have **different wavelengths**, as recited in independent claim 1.

Yamazaki also does not teach or suggest that the optical systems generate laser beams with different levels of laser light (i.e., one laser beam for melting an object, and another laser beam to heat but not melt the object). Instead, in Yamazaki, the laser beams of different phases are simply superimposed to reduce interference of light.

Moreover, the claim limitation "second radiation means for selectively radiating second laser light to said base material to heat said base material without melting said base material..." does not constitute an intended use of the second radiation means, as alleged in the Office Action of 10/10/2006 on page 4, first paragraph and page 6, last paragraph to page 7, first paragraph. According to MPEP 2144.07, an obviousness rejection based on intended use requires that a material is selected "based on its suitability for its intended use."

However, independent claim 1 recites structural differences in the level of laser light applied by the "second radiation means" as compared to the "first radiation means," i.e., while the first radiation means radiates first laser light to melt a target area, the second radiation means radiates second laser light only "to heat said base material without melting said base material." Independent claim 1 has been amended to remove the language "said second laser light being transmitted through said semiconductor thin film better than said first laser light," thereby obviating the obviousness rejection based on intended use. Therefore, the Applicants' claimed invention does not recite an intended use, but instead recites structural differences in the levels of laser light applied by the first radiation means and the second radiation means, respectively.

For at least the reasons discussed above, the Yamazaki reference does not anticipate or otherwise render obvious the Applicants' claimed invention as recited in independent claim 1. Therefore, independent claim 1 and dependent claims 2-4, 6, and 8-10 are patentable over Yamazaki.


T. Inui et al.
U.S. Serial No. 10/789,085
Page 7 of 7

It is believed the application is in condition for immediate allowance, which action is earnestly solicited.

Respectfully submitted,

Date: January 10, 2007

By:



Steven M. Jonsen
(Reg. No. 42,693)

Edwards Angell Palmer & Dodge
P.O. Box 55874
Boston, MA 02205

Phone: (617) 439-4444

Customer No. 21874